REMARKS

This patent application presently includes Claims 1-10, all of which stand rejected. Claim 1 is amended for clarity, and all rejections are respectfully traversed.

Claims 1-10 were rejected under 35 U.S.C. §112 as indefinite. The claims have now been amended, as deemed appropriate, with an eye towards improving their clarity, and it is believed that all of the claims are now clear and concise.

The examiner considered Claim 1 indefinite, asserting that it was not clear whether "the waste" of Line 3 was necessarily the "unsorted municipal waste" recited in Line 1. It is not seen that it could possibly be otherwise. There is only a single occurrence of the term "waste" prior to the recitation of "the waste" at Line 3 of Claim 1. Accordingly, this recitation is very precise and appropriate, and this rejection should be withdrawn.

The examiner also considered the use of "substantially" at Line 9 to be indefinite. It is respectfully submitted that those skilled in the art would have no difficulty understanding what is and what is not a substantial increase in temperature in the context of this process and these materials. This rejection should therefore be withdrawn.

The examiner also rejected Claims 2 and 3 owing to the use of improper Markush terminology. The applicant has no intention of using Markush terminology in those instances. The claim language is simply a device to make the claim clearer and more concise. That is, instead of reciting "a, b or c", which the examiner would undoubtedly considered indefinite, owing to the use of the alternative "or", "one of a, b, and c" is utilized. There is nothing unclear or inconcise about the this language, and the rejection should be withdrawn.

In Claim 10, the examiner considered "high-quality recycled humus of Maturity Class V" to be indefinite, because "the standard for 'Maturity Class V' could change over the course of time." This is absurd. The applicant has made a proper reference to a recognized standard. For those skilled in the art, this would have a very definite meaning. Should the standards change, the reference would still have a recognized, definite meaning. There is no justification for this rejection and it should be withdrawn.

Claims 1-6 and 8-10 were rejected as obvious over DE 1,014,975, DE 4,444,745 or EP 506139 in view of Ghelfi, U.S. Patent No. 3,905,796. This rejection is respectfully traversed. None of these references, nor any combination thereof renders the present claims obvious.

The present invention relates to a method for continuously converting unsorted municipal waste to a high quality recycled humus. The waste is continuously transported to a liquid containing soaking tank. On route, ferrous components are magnetically removed and coarse parts beyond a predefined size are screened out. The remainder is deposited in the soaking tank to form a slurry, from which floating matter is continuously skimmed off and settled heavy matter is removed. After some drying, the slurry is continuously subjected to thermomechanical treatment involving sufficient mechanical pressure and frictional warping forces to increase its temperature substantially, to change its microorganism content, and to render the resulting material, at the end of the thermomechanical treatment, hygienic, and practically germ-free and neutral in odor. The

resultant material is also loose, springy and full in structure. In other words, it is substantially increased in volume.

Owing to the presence of dangerous germs and matter which causes damage, many jurisdictions have now forbidden the use of recycled sewage sludge in fertilizing applications. The present invention therefore seeks to produce a hygienic, essentially sterile humus. As will be demonstrated below, the references applied by the examiner do not fall into this category and are decidedly different from the present invention.

Referring first to DE 1,014,975, it is not directed to producing a recycled humus, but a "nature manure" by treating biological waste with an extruder after eliminating foreign components (e.g. glass bottles) by hand and mixing it, depending on moisture content, with wood shavings (Column 1, Lines 55-62). The output is capable of use as a nature manure. It is crumbly and its volume is reduced (Column 2, Lines 4-6). To use the output as a sterile humus, it would need to be composted for an additional month (Column 2, Lines 7-10). Thus, this reference does not have the result of the present invention which immediately produces a sterile humus having a substantially increased volume (compared to the starting product), not a decreased one.

DE 4,444,745 is not directed to a recycled humus, but a peat substitute (Column 1, Lines 15-17), based upon activated sludge, liquid manure, PC sludge, or biological garage and wood (Column 1, Lines 29-32). The product is described as having "hohe Strukturstabilitat" (Column 1, Line 38), which means high structural stability or

solidity. This is quite different from the loose, springy and full structure of the product of the present invention.

EP 506,139 is not addressed to producing recycled humus, but "organic fertilizers" from various livestock excrements, or sewage disposal sludge (Column 1, Lines 3-11). There is not the slightest suggestion of treating municipal waste. While the product of the present invention is increased in volume after the thermomechanical treatment, the product produced by this reference is reduced in volume by pulverization (See Claim 1, Line 30).

Ghelifi '796 is not addressed to producing recycled humus, but "manure-based fertilizer" (Abstract, Line 1). Also, it is not directed at processing municipal waste, but animal excrement (Column 1, Lines 7-10). Finally, this reference teaches away from the present invention (which prepares the product hygienically for rapid-composting) by disclosing that the product should be "dehydrated down to moisture content which stops rapid biological and chemical processes" (Column 1, Lines 10-12).

Timmenga '499 is not addressed to producing a recycled humus, but fertilizer or animal feed (Column 2, Lines 30-32). The starting material is not municipal waste, but organic solid waste material (Column 1, Line 11). It does not utilize a thermo-mechanical treatment, but "thermophilic aerobic digestion" (Column 2, Line 32). It therefore also teaches away from the dry compost utilized in the present invention. Most interestingly, this is not a continuous process, but a batch process (Column 2, Lines 61-63).

In summary, none of the references applied by the examiner utilizes the same starting product, results in the same kind of end product or utilizes a comfortable process. Moreover, the finished product of the invention is loose, springy and full in structure, and none of the references even remotely suggest that such a product would be a desirable result.

Turning now to the claims, Claim 1 is addressed to a method for continuously treating unsorted municipal waste to produce a high quality, recycled humus. As pointed out above, none of the references teach or suggest using unsorted waste or producing a humus. Indeed, the references utilized to reject Claim 1 all relate to processing animal manure of some sort. As pointed out above, this is undesirable as starting material and, furthermore, there is no reason to believe that a process which is effective for animal manure would also be beneficial for municipal waste.

Furthermore, Claim 1 recites that the product at the end of the thermo-mechanical treatment is loose, springy and full in structure. None of the references even remotely suggests such a product, but they tend to produce a product which is decreased in volume, rather than increased. This loose, full structure of the invention is a result of the method of processing and, moreover, makes the product particularly responsive to composting. None of the references, either individually or in combination teach or suggest a process which will produce such a product.

In addition, Claim 1 sets forth that, on route to the soaking tank, ferrous parts are magnetically removed, coarse parts are screened out, and in the slurry, floating matter is continuously skimmed off and settled heavy matter is removed. None of the references,

nor any combination teaches or suggests such a combination of steps performed at the points claimed.

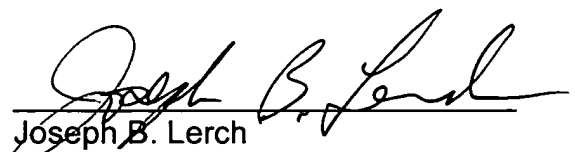
As a result, none of the claims, nor any combination teaches or suggests the claimed method, and the rejection of Claim 1 should be withdrawn.

The remaining claims depend from Claim 1 and are believed to be allowable based upon their dependence from an allowable claim.

In rejecting Claim 7, the examiner added yet another reference, Timmenga, to the previous combination. This reference, however, does not rectify the basis for the basic obviousness rejection of Claim 1 to be improper. In fact, as pointed out above, this reference does not even disclose a continuous process. Accordingly, Claim 7 is also believed to be allowable.

Applicant's attorney has made every effort to place this patent application in condition for allowance. It is therefore earnestly requested that this application, as a whole, receive favorable reconsideration and that all of the claims be allowed as presently constituted. Should there remain any unanswered questions, the examiner is requested to call the applicant's undersigned attorney at the telephone number given below.

Respectfully submitted,



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